

124 FERC ¶ 61,041
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;
Sudeen G. Kelly, Marc Spitzer,
Philip D. Moeller, and Jon Wellinghoff.

Caledonia Energy Partners, L.L.C.

Docket No. CP08-52-000

ORDER ISSUING CERTIFICATE

(Issued July 17, 2008)

1. On January 14, 2008, Caledonia Energy Partners, L.L.C. (Caledonia) filed an application under section 7(c) of the Natural Gas Act (NGA) for a certificate of public convenience and necessity authorizing it to expand its existing storage facility, known as the Caledonia Field, in northwest Mississippi.

2. We will authorize Caledonia's proposals, with appropriate conditions, as discussed below.

I. Background

3. Caledonia is a limited liability company organized and existing under the laws of Delaware. Caledonia is a natural gas company within the meaning of the NGA that operates the Caledonia Field, in Lowndes and Monroe Counties, Mississippi.¹

4. In 2005, the Commission authorized Caledonia to convert the Caledonia Field, a depleted natural gas reservoir into a high-deliverability, multi-cycle gas reservoir capable of storing 11.7 billion cubic feet (Bcf) of working gas, with a maximum withdrawal capacity of 330,000 million cubic feet (Mcf) per day and a maximum injection capability

¹ On May 19, 2008, Caledonia announced its pending sale to Enstor, Inc., a natural gas storage unit of Iberdrola Renewables, part of the Spanish utility Iberdrola, S.A., group of companies.

of 260,000 Mcf per day.² The Caledonia Field interconnects via a 1.98-mile-long pipeline with Tennessee Gas Pipeline Company's (Tennessee) Zone-1 500 Leg Mainline. The Caledonia Field's location also provides it with indirect access to gas markets via Midwestern Gas Transmission Company, Columbia Gas Transmission Corporation, Dominion Gas Transmission, Inc., East Tennessee Natural Gas Company, National Fuel Gas Company, Algonquin Gas Transmission Company, Texas Eastern Transmission Corporation, and Southern Natural Gas Company.

5. Caledonia provides open-access firm and interruptible storage services and interruptible loan service under its tariff.³ Caledonia charges market-based rates for its services.

II. Proposals

A. Facilities

6. Caledonia proposes to construct and operate facilities in two phases in order to expand its storage field. In the first phase, Caledonia proposes to develop the County Line Field, a depleted production reservoir approximately two miles northeast of the Caledonia Field, as an additional field capable of storing approximately 1.6 Bcf of working gas.⁴ Specifically, Caledonia proposes to construct one injection and withdrawal well, with two horizontal lateral sections,⁵ and associated piping and meter facilities at the County Line Field, as well as approximately 1.82 miles of 8-inch diameter pipeline to interconnect the County Line Field with the Caledonia Field. Caledonia states that it has designed the County Line Field to operate in conjunction with the Caledonia Field as a

² *Caledonia Energy Partners, L.L.C.*, 111 FERC ¶ 61,095 (2005) (the 2005 *Caledonia* order). On several occasions, we amended the 2005 *Caledonia* order to modify the facilities authorized. See *Caledonia Energy Partners, L.L.C.*, 115 FERC ¶ 62,060 (2006); 119 FERC ¶ 62,012 (2007); and 121 FERC ¶ 61,234 (2007).

³ On November 30, 2007, we issued a letter order accepting, effective December 5, 2007, proposed amendments to Caledonia's tariff including the implementation of two priority interruptible services. *Caledonia Energy Partners, L.L.C.*, unpublished letter order, Docket No. RP08-57-000 (November 30, 2007).

⁴ Caledonia asserts that the County Line Field has produced nearly 2.7 Bcf of gas from two wells since 1985. Currently, Caledonia states that all wells in the field are plugged and abandoned and that the field is substantially depleted.

⁵ A multi-lateral well has one vertical wellbore with multiple horizontal or directionally drilled laterals branching off the main vertical wellbore.

natural gas storage complex and that no additional compression is necessary to interconnect the two fields.⁶

7. In the second phase, Caledonia proposes to install 10,000 horsepower (hp) of compression and ancillary equipment in a new compressor building within the existing compressor station at the Caledonia Field. Specifically, the proposed compressor facilities will consist of two 5,000 hp electric motor compressor packages, as well as a heater, separators, and associated piping. The additional compressors will allow Caledonia to increase the maximum allowable operating pressure of the Caledonia and the County Line Fields from 2,110 to 2,518 pounds per square inch absolute (psia).⁷

8. Caledonia's proposals will increase the maximum working gas storage capacity of its storage facility from 11.7 Bcf to approximately 16.9 Bcf and the maximum daily withdrawal capability from 330,000 Mcf to 477,000 Mcf per day. Caledonia's storage facility will cycle gas four times per year, with each cycle consisting of 40 days for withdrawal and 51 days for injection.

9. Caledonia's tariff provides it with the option of holding an open season for expansion capacity or offering capacity on a first-come, first-served basis following an electronic bulletin board (EBB) posting setting forth the availability of capacity.⁸ Caledonia states that it has not held an open season for the increased capacity because of the strong interest expressed for that capacity by potential customers following the posting of the proposals on its EBB.⁹ Caledonia states that it continues to evaluate the market and may conduct an open season in the future as the in-service date of the proposals approaches.¹⁰

10. Caledonia states that the County Line Field is in a sparsely populated agricultural area of Mississippi, that the proposed pipeline is in forest and pasture land, and that the proposed compressor station is to be located at the existing compressor station site at the Caledonia Field. Caledonia asserts that it has acquired 75 percent of the surface and

⁶ Caledonia states that it received authorization from the State Oil and Gas Board of Mississippi to use and operate the County Line Field for the injection, storage, and withdrawal of natural gas. Order No. 541-2007, Docket No. 175-2007-623 (September 19, 2007).

⁷ There are no non-jurisdictional facilities associated with Caledonia's proposals.

⁸ See Caledonia's FERC Gas Tariff, Original Sheet No. 29A and First Revised Sheet Nos. 30 and 31.

⁹ Caledonia's May 9, 2008 response to a data request, question 2.

¹⁰ *Id.*

subsurface property rights necessary to construct and operate the project. Caledonia states that it will disturb 12.99 acres of land in association with construction of the proposals and that only 8.33 acres will be permanently disturbed. Caledonia contends that it will work with all affected landowners to address their concerns.

B. Rates

11. Caledonia proposes to continue charging market-based rates for its firm and interruptible storage services. In support of its request, Caledonia presented an updated market-power analysis showing that it will not be able to exercise market power in the relevant geographic and product markets after the proposed expansion of the Caledonia Field is completed.¹¹

C. Waivers

12. Because Caledonia currently charges market-based rates, it requests continued waiver of the Commission's cost-based regulations, which include: (1) section 284.7(e) (reservation charge); (2) section 284.10 (straight fixed-variable rate design methodology); (3) the accounting and reporting requirements of Part 201 and section 260.2; (4) section 157.14(a)(13), (14), (16), and (17) (cost-based exhibits); and (5) section 157.14(a)(10) (gas supply information).

D. Need for the Project

13. Caledonia contends that additional storage capacity is needed in the Gulf Coast region to accommodate domestic natural gas production and liquefied natural gas (LNG) imports. Specifically, Caledonia contends that two LNG terminals currently under construction in the Gulf Coast region – the Cameron facility in Hackberry, Louisiana and the Gulf Energy LNG facility in Pascagoula, Mississippi – will be connected to Tennessee's pipeline facilities. In addition, Caledonia asserts that another LNG terminal that has been authorized by the Commission – the Bayou Casotte Energy facility – will be connected to Tennessee. Further, although not connected to Tennessee, Caledonia asserts that the Cheniere Creole Trail and Sabine Pass LNG terminals will have direct and indirect impacts on Caledonia as shippers seek to store some of those volumes. Finally, Caledonia contends that its proposals will help meet the growing demand for storage from marketers, producers, and local distribution companies and enhance the flexibility of Caledonia's storage facility for existing and expansion customers.

¹¹ Caledonia's application at Exhibit I.

III. Interventions

14. Notice of Caledonia's application was published in the *Federal Register* on March 5, 2008 (73 Fed. Reg. 9,788). No motions to intervene, notices of intervention, or protests to the application were filed.

IV. Discussion

15. Since the proposed facilities will be used to transport natural gas in interstate commerce subject to the jurisdiction of the Commission, the construction and operation of the facilities are subject to the requirements of subsections (c) and (e) of section 7 of the NGA.

A. Certificate Policy Statement

16. The Certificate Policy Statement provides guidance as to how we will evaluate proposals for certificating new construction.¹² The Certificate Policy Statement established criteria for determining whether there is a need for a proposed project and whether the proposed project will serve the public interest. The Certificate Policy Statement explained that in deciding whether to authorize the construction of major new pipeline facilities, we balance the public benefits against the potential adverse consequences. Our goal is to give appropriate consideration to the enhancement of competitive transportation alternatives, the possibility of overbuilding, subsidization by existing customers, the applicant's responsibility for unsubscribed capacity, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain in evaluating new pipeline construction.

17. Under this policy, the threshold requirement for pipelines proposing new projects is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. The next step is to determine whether the applicant has made efforts to eliminate or minimize any adverse effects the project might have on the applicant's existing customers, existing pipelines in the market and their captive customers, or landowners and communities affected by the route of the new pipeline. If residual adverse effects on these interest groups are identified after efforts have been made to minimize them, we will evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits outweigh the adverse effects on economic interests will we proceed to complete the environmental analysis where other interests are considered.

¹² *Certification of New Interstate Natural Gas Pipeline Facilities*, 88 FERC ¶ 61,227 (1999), *order on clarification*, 90 FERC ¶ 61,128, *order on clarification*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement).

18. As noted above, the threshold requirement is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. Under its market-based rate proposal for the new capacity, Caledonia will assume the economic risks associated with the costs of its proposals. Moreover, all of Caledonia's existing customers receive storage service under contracts at market-based rates. These contracts will not change as a result of the proposal. Thus, we conclude that there will be no subsidization. We find that Caledonia has satisfied the threshold requirement of the Certificate Policy Statement.

19. Caledonia's project will have no impact on its existing customers since the proposals will not result in any degradation of service to them. To the contrary, the proposed project will enhance storage options available to these customers. Further, Caledonia's proposals will not impact existing pipelines, but should benefit shippers by improving the flexibility and reliability of service, as well as meeting expanded market demand. Also, no existing storage company protested Caledonia's application.

20. Caledonia states that it will disturb 12.99 acres of land during construction, but that only 8.33 acres will be permanently disturbed. In addition, Caledonia states that it will work with all affected landowners to address their concerns. Further, no landowner or community member objected to the proposed facilities. Thus, we find that there should be minimal adverse impact on landowners and communities affected by the proposals.

21. We conclude that the proposals herein will allow Caledonia to increase the high-deliverability storage services available to growing markets served through the interstate pipelines directly or indirectly connected with Caledonia's storage facility. The proposals also will improve the flexibility and reliability of service of Caledonia's storage facility, as well as add needed natural gas infrastructure in the Gulf Coast market. Based on the benefits Caledonia will provide to the market and the lack of any identified adverse impacts on existing customers, other pipelines, landowners, and communities, we find, consistent with the Certificate Policy Statement and section 7 of the NGA, that the public convenience and necessity requires approval of Caledonia's storage project, as conditioned below.

B. Market-Based Rates

22. Caledonia seeks to reaffirm its authority to provide firm and interruptible storage services at market-based rates. The 2005 *Caledonia* order authorized Caledonia to charge market-based rates for its firm and interruptible storage and interruptible loan services, subject to re-examination if Caledonia added storage capacity beyond the capacity authorized. The 2005 *Caledonia* order required Caledonia to notify the Commission of future circumstances that might affect its market-power status.

23. Under the analytical framework of the Commission's Alternative Rate Policy Statement,¹³ we have approved market-based rates for storage providers where they have demonstrated that they lack market power or have adopted conditions that significantly mitigate market power. We have approved requests to charge market-based rates for storage services based on a finding that the proposed projects would not be able to exercise market power due to their relatively small size, their relatively low anticipated share of the market, the existence of numerous competitors in the relevant geographic market, and the ease of entry into the relevant market.¹⁴ We have also distinguished between production-area storage facilities, such as Caledonia, and market-area storage.¹⁵ In general, market power in a production area is less of a concern due to the numerous alternative storage facilities operating in competition with one another.

24. In support of its request for continuation of market-based rate authority, Caledonia submitted a market-power study.¹⁶ Caledonia's market-power analysis defines the relevant geographic market, measures market share and concentration, and evaluates other relevant factors. The relevant product market for which the 2005 *Caledonia* order granted authority was firm and interruptible storage services for natural gas, as well as interruptible loan service. The relevant geographic market is defined as the Gulf Coast producing region from east Texas to Alabama, or the "Gulf States Market." Caledonia's market power study narrowed the potential market by removing from the study any facility that does not currently offer storage capacity and deliverability to third parties.

¹³ *Alternatives to Traditional Cost-of-Service Ratemaking for Natural Gas Pipelines and Regulation of Negotiated Transportation Services of Natural Gas Pipelines*, 74 FERC ¶ 61,076; *reh'g and clarification denied*, 75 FERC ¶ 61,024 (1996), *petition denied and dismissed*, *Burlington Resources Oil & Gas Co. v. FERC*, 172 F.3d 918 (D.C. Cir. 1998), *criteria modified*, *Rate Regulation of Certain Natural Gas Storage Facilities*, Order No. 678, FERC Stats. & Regs. ¶ 31,220 (2006), *order on clarification and reh'g*, Order No. 678-A, 117 FERC ¶ 61,190 (2006) (Alternative Rate Policy Statement).

¹⁴ *Tres Palacios Gas Storage, LLC*, 120 FERC ¶ 61,253 (2007); *Port Barre Investments, L.L.C.*, 116 FERC ¶ 61,052 (2006); *Egan Hub Partners, L.P.*, 95 FERC ¶ 61,395 (2001).

¹⁵ *Moss Bluff Hub Partners, L.P.*, 80 FERC ¶ 61,181 (1997); *Steuben Gas Storage Co.*, 72 FERC ¶ 61,102 (1995), *order on compliance filing, issuing certificates, and denying reh'g*, 74 FERC ¶ 61,060 (1996).

¹⁶ Caledonia's market power study was prepared by Keith A. Reutter and is contained in Edward C. Gallick's affidavit in Exhibit I of the application.

25. We use the Herfindahl Hirschman Index (HHI) test to determine market concentration for gas pipeline and storage markets. The Alternative Rate Policy Statement states that a low HHI – generally less than 1,800 – indicates that sellers cannot exert market power because customers have sufficiently diverse alternatives in the relevant market.¹⁷ While a low HHI suggests a lack of market power, a high HHI – generally greater than 1,800 – requires a closer scrutiny in order to make a determination about a seller’s ability to exert market power. Exhibit I (KAR-3) to Caledonia’s market power study shows an HHI calculation of 1,514 for working gas capacity and Exhibit I (KAR-4) shows an HHI calculation of 937 for daily deliverability. These measures of market concentration are well below the Commission’s threshold level of 1,800, indicating that Caledonia would be unable to exert market power in the relevant market area after the construction of its proposed storage facilities.

26. In addition to the proposed facility, Caledonia’s market-power study identifies 26 alternative storage areas, affiliated with 15 separate entities, in the relevant market area. Exhibit I (KAR-3) shows that the current combined working gas capacity of the identified facilities, including Caledonia, is 652.16 Bcf, with Caledonia controlling 16.9 Bcf, or approximately 2.6 percent of the market. Exhibit I (KAR-3) also demonstrates that no entity will control more than 29.5 percent of the total market for working gas capacity, with thirteen of fifteen entities controlling less than 15 percent of the market. In addition, Exhibit I (KAR-4) of the study shows that Caledonia’s approximately 500,000 Mcf per day of peak deliverability will be less than three percent of the total market peak deliverability of 17,685,000 Mcf per day. Exhibit I (KAR-4) also shows that no single entity will control more than 13.6 percent of the total market for peak-day deliverability. Thus, we find that Caledonia’s aggregate share of the relevant market will be relatively small.

27. Exhibit I (KAR-5) lists 16 storage projects under development in the region to show the ease of entry into the Gulf States Market. In addition, Exhibit I (KAR-6) lists eight alternative storage facilities in the Gulf Coast Market that offer comparable services to those offered by Caledonia. In light of this information, we conclude that the barriers to entry to the storage markets in the relevant market area are low.

28. We find that Caledonia’s proposed storage facilities will be in a highly competitive production area where numerous storage and interruptible hub service alternatives exist for potential customers. We also find that Caledonia’s prospective market shares are low and that market area HHIs are below the threshold for further review. Further, Caledonia’s proposal for market-based rates is unopposed. For these reasons, we conclude that Caledonia will lack market power. Thus, we will approve

¹⁷ Alternative Rate Policy Statement, 74 FERC at 61,235; Order No 678, FERC Stats. & Regs. ¶ 31,220 at P 55.

Caledonia's request to continue to charge market-based rates for firm and interruptible storage and interruptible loan services.

29. Nevertheless, Caledonia must notify us if future circumstances significantly affect its present market-power status. Thus, our approval of market-based rates for the indicated services is subject to re-examination in the event that: (a) Caledonia adds storage capacity beyond the capacity authorized in this order; (b) an affiliate increases storage capacity; (c) an affiliate links storage facilities to Caledonia; or (d) Caledonia, or an affiliate, acquires an interest in, or is acquired by, an interstate pipeline connected to Caledonia. Since these circumstances could affect its market-power status, Caledonia shall notify the Commission within 10 days of acquiring knowledge of any such changes. The notification shall include a detailed description of the new facilities and their relationship to Caledonia.¹⁸ We also reserve the right to require an updated market-power analysis at any time.¹⁹

C. Waivers

30. Caledonia requests that we confirm that the waivers of the Commission's filing, accounting, and reporting requirements granted in the 2005 *Caledonia* order remain applicable to its provision of storage and loan services. The cost-related information required by these regulations is not relevant in light of our continued approval of market-based rates for Caledonia's services. Thus, we confirm that the waivers granted in the 2005 *Caledonia* order remain applicable. However, as discussed in the 2005 *Caledonia* order, we will require Caledonia to file pages 520 and 520a of Form No. 2-A, reporting the gas volume information which is the basis for imposing an annual charge adjustment charge.²⁰ We will also require Caledonia to maintain sufficient records of cost and revenue data consistent with the Uniform System of Accounts should we require Caledonia to produce these reports in the future.

D. NGA Violation

31. In preparing to file the application herein, Caledonia conducted tests, pursuant to its blanket certificate under section 157.215 of Commission's regulations, to determine the Caledonia Field's response to increased pressures and the time required for stabilization of the reservoir. Specifically, Caledonia: (1) on October 20, 2007, commenced initial tests to confirm the field's ability to operate at 2,518 psia by

¹⁸ See, e.g., *Copiah County Storage Co.*, 99 FERC ¶ 61,316 (2002); *Egan Hub Partners, L.P.*, 99 FERC ¶ 61,269 (2002).

¹⁹ See *Rendezvous Gas Services, L.L.C.*, 112 FERC ¶ 61,141, at P 40 (2005).

²⁰ See *Wyckoff Gas Storage Co., LLC*, 105 FERC ¶ 61,027, at P 65 (2003).

increasing the delivery of operational balancing gas from Tennessee under a pre-existing agreement and (2) on October 22, 2007, increased further the field's pressure by providing additional park service under Rate Schedule ISS. As part of this test, Caledonia posted the available storage capacity on its EBB, offered the capacity to customers on a non-discriminatory basis under its tariff, and provided interruptible storage services from the additional storage capacity created by the testing.

32. Section 157.215 provides that the holder of a blanket certificate has automatic authorization to construct and operate pipeline and compression facilities to be used for the testing and development of underground reservoirs for the possible storage of gas. Section 157.215 permits the blanket certificate holder to exceed the facility's certificated capacity and pressure limits during testing. Section 157.215(a)(4), however, does not permit the blanket certificate holder to provide service in connection with the testing activities without first obtaining Commission approval.²¹

33. Caledonia provided interruptible storage services from the additional storage capacity created by the testing. We find that Caledonia's actions violated section 157.215(a)(4) of the regulations, which provides that a blanket certificate holder cannot provide service in connection with testing activities. Nevertheless, under the circumstances presented here, we will not impose penalties on Caledonia. Caledonia is a small company that operates only one storage facility and its activities did not cause any environmental harm. Moreover, upon recognition of its violation, Caledonia self reported and acknowledged the violation to the Commission's Office of Enforcement, agreed to take steps to ensure that the violation would not re-occur in the future, and agreed to disgorge the unjust profits resulting from the violation. We direct Caledonia to disgorge all unjust profits and report the disgorgement to the Office of Enforcement.

E. Engineering Analysis

34. Caledonia proposes to increase the maximum reservoir pressure of the Caledonia and County Line Fields to 2,518 psia. The State Oil and Gas Board of Mississippi allows a reservoir's maximum pressure to be increased above initial discovery pressure to no more than 75 percent of the fracture pressure of the reservoir, which is higher than the proposed 2,518 psia proposed herein. Before receiving its original authorization in 2005, Caledonia also demonstrated that the Caledonia Field could safely operate at a maximum reservoir pressure of 2,518 psia. While the County Line Field was not included in that study, the assumption that it will have the same potential as the Caledonia Field is reasonable because the County Line Field is in the same formation approximately two miles away. Nevertheless, we will require that Caledonia monitor the County Line Field as the reservoir pressure approaches 2,518 psia to ensure the physical integrity of the field and that the gas does not migrate.

²¹ See *Columbia Gas Transmission Corp.*, 120 FERC ¶ 62,192 (2007).

35. Our volumetric and material balance calculations confirmed the volumes of working gas, cushion gas, and total capacity for the Caledonia and County Line Fields at the original pressure and the proposed pressure of 2,518 psia. We also find that the size, length, and proposed locations of the two horizontal laterals from the County Line injection and withdrawal well will allow Caledonia sufficient contact within the County Line Field to fill and withdraw the working gas capacity. Further, the additional 10,000 hp of compression will allow Caledonia to inject and withdraw the total working gas capacity for both fields at the proposed higher rates and be able to cycle the fields up to four times as year.

36. We conclude that the total maximum capacity for the Caledonia Facility, which includes the Caledonia and County Line Fields, will be 22.7 Bcf with a total working gas capacity of 16.9 Bcf at a maximum shut-in reservoir pressure of 2,518 psia. The maximum daily withdrawal rate will be 477,000 Mcf per day and the maximum injection rate is 375,000 Mcf per day.

37. Based on our review, we conclude that Caledonia's proposals, if constructed as described, are technically sound and feasible. Caledonia, however, must comply with the engineering conditions attached in Appendix A to this order.

F. Environmental Analysis

38. On February 14, 2008, we issued a *Notice of Intent to Prepare an Environmental Assessment* (NOI). We mailed the NOI to 210 federal, state, and local officials; agency representatives; conservation organizations; Native American tribes; local libraries and newspapers; and affected property owners. The Mississippi Natural Heritage Program (Mississippi NHP) filed a comment letter to the NOI.

39. On April 29, 2008, we issued an environmental assessment (EA) for Caledonia's proposal. We sent the EA to the 21 landowners that requested a copy. The EA addressed geology, soils, water resources, wetlands, vegetation, wildlife, endangered and threatened species, land use, cultural resources, air and noise quality, reliability and safety, cumulative impacts, alternatives for the project, and the Mississippi NHP's comment letter. We received an anonymous comment to the EA. Caledonia responded to the comment.

40. The impacts of construction and operation of the proposed project on topography and geology will be minor and limited primarily to construction activities. Following construction, Caledonia will restore topographic and drainage conditions to pre-construction configuration, with the exception of above-ground facility sites that will be graded and graveled to accommodate permanent operations. Caledonia will use six horizontal directional drills (HDD) and a conventional bore to avoid impacts to all wetlands, waterbodies, and cultural resources. The EA identified no unique, sensitive, or protected vegetation types, plant communities, or wildlife habitats within the project area.

The EA also concluded there will be no impacts to federal- or state-listed threatened or endangered species or their habitats.

41. Impacts to noise quality will generally be temporary, minor, and limited to daylight hours, except at well drilling and HDD sites. To minimize the potential for construction noise where drilling would occur 24 hours per day, the EA recommended that Caledonia develop a Noise Analysis and Mitigation Plan. Following issuance of the EA, Caledonia filed an acoustic assessment of the proposed HDD and well drilling sites, indicating that noise generated by drilling operations could exceed our noise standards unless additional mitigation measures are employed. Because Caledonia did not identify and agree to implement additional mitigation, Environmental Condition 13 requires that, before construction, Caledonia specify the noise mitigation measures it will implement at the drill sites.

42. The proposed new compressors and modifications at the existing compressor station site will generate noise on a continuous basis during operations. The EA concluded that the predicted increase above existing noise levels at noise sensitive areas (NSA) will not be perceptible. Environmental Condition 14, however, requires Caledonia to file noise surveys after the new compressors and station modifications are placed into service to verify that predicted levels are not exceeded at nearby NSAs. No net air emission increases will result from operation of the proposed and existing facilities.

1. Comment to the NOI

43. The Mississippi NHP expressed concern for water quality impacts to tributaries of the Buttahatchee River, where federal and state listed fish and mussel species are known to occur. Caledonia will avoid direct impacts to aquatic habitats by installing the pipeline under the river and its tributaries using an HDD or conventional bore method. Thus, the EA concluded that no adverse impacts to waterbodies will result from construction and operation of the project. We agree with the EA's conclusions.

2. Comment to the EA

44. The anonymous commenter contends that a "potentially dangerous situation" will exist if Caledonia is allowed to develop the County Line Field. Specifically, the commenter asserts that (1) there is a geologic fault on the north side of the field and a proposed storage well will be within a few hundred feet of the fault; (2) fault movement associated with an earthquake could cause pipeline ruptures and the possibility of a "crevice that would let the gas underground escape;" and (3) re-pressurizing the field with storage gas could cause an earthquake.

45. As to the first issue raised by the commenter, it is not uncommon to have faults in proximity to storage fields. Many oil and gas fields (and consequently depleted fields

being developed for gas storage, as here) are bounded by faulted geologic structures. For the most part, the faults are ancient and buried and have little or no relationship to the current tectonic environment. In fact, the faults often have a sealing effect on the contained oil or gas. Here, the fault was instrumental in creating the trap where gas was safely contained for millennia before the discovery and development of the County Line Field.

46. According to records from the United States Geological Survey, the only damaging earthquake in Mississippi during the last 440 years took place in December 1931. It was a magnitude 4.6 earthquake centered in Charleston, Mississippi, more than 100 miles from the proposed County Line Field. The earthquake caused some minor damage but no documented surficial fault rupture. No earthquakes above a magnitude 4.5 are known to have occurred within approximately 40 miles of the proposed storage field. The recent magnitude 3.1 earthquake identified in the comment letter occurred approximately 10 miles northwest of Tupelo, Mississippi, which is approximately 50 miles from the County Line Field, and had a reported maximum intensity of IV (light shaking; no damage expected). The minimum earthquake magnitude normally associated with surface faulting is magnitude 5.5. Larger earthquakes have occurred in other parts of the central and eastern United States without producing surface faulting. For these reasons, we conclude that it is highly unlikely that an earthquake large enough to cause surface fault rupture, release of gas from the storage zone through “crevices,” or damage to pipelines or the storage facility would occur during the life of the project.

47. Here, Caledonia proposes to operate the County Line Field at a shut-in pressure that is higher than the initial field discovery pressure. We note that there have been rare documented cases of minor earthquakes caused by deep underground fluid injections. Nevertheless, as discussed above, Caledonia demonstrated that the Caledonia Field could safely operate at a maximum reservoir pressure of 2,518 psia, which is the pressure proposed for the County Line Field; that Mississippi allows a reservoir’s maximum pressure to be increased above initial discovery pressure to no more than 75 percent of the fracture pressure of the reservoir and that this limit is higher than the proposed pressure of 2,518 psia; and that the County Line Field is in the same formation and approximately two miles from the Caledonia Field. With these facts in mind and based on the lack of historic earthquake activity in the area and the lack of activity during the production phase of the field, we conclude that there is no reason to believe that the fault is active or that storage gas injection would cause a damaging earthquake.

3. Conclusion

48. Based upon the analysis described in the EA, we conclude that approval of Caledonia’s proposals would not constitute a major federal action significantly affecting the quality of the human environment, if Caledonia constructs and operates the proposed facilities in accordance with its application, supplemental filings, and staff’s recommended environmental conditions.

49. Any state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this certificate. We encourage cooperation between interstate pipelines and local authorities. However, this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.²²

50. At a hearing held on July 17, 2008, the Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application and exhibits thereto, submitted in support of the authorization sought herein, and upon consideration of the record,

The Commission orders:

(A) A certificate of public convenience and necessity is issued to Caledonia authorizing it to construct and operate the proposed storage facilities, as more fully described in this order and in the application.

(B) The certificate issued herein is conditioned on Caledonia's compliance with all applicable Commission regulations under the NGA, particularly the terms and conditions in Parts 154 and 284 and paragraphs (a), (c), (e), and (f) of section 157.20 of the regulations.

(C) Caledonia's request to charge market-based rates for its firm storage service and interruptible park and loan service is approved, as described in this order.

(D) Caledonia's request for continued waiver of the Commission's cost-based regulations is granted, as discussed in the body of the order.

(E) The certificate issued herein is conditioned on Caledonia's compliance with the engineering conditions set forth in Appendix A to this order.

(F) The certificate issued herein is conditioned on Caledonia's compliance with the environmental conditions set forth in Appendix B to this order.

(G) Caledonia shall notify the Commission's environmental staff by telephone, e-mail, and/or facsimile of any environmental noncompliance identified by other federal, state, or local agencies on the same day that such agency notifies Caledonia. Caledonia

²² See, e.g., *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *National Fuel Gas Supply v. public Service Comm'n*, 894 F.2d 571 (2d Cir. 1990); and *Iroquois Gas Transmission System, L.P.*, 52 FERC ¶ 61,091 (1990) and 59 FERC ¶ 61,094 (1992).

shall file written confirmation of such notification with the Secretary of the Commission (Secretary) within 24 hours.

(H) The facilities authorized in this order shall be constructed and made available for service within one year of the date of the order in this proceeding.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.

Appendix A

Caledonia's Engineering Conditions

1. The maximum inventory of natural gas stored in the Caledonia Facility shall not exceed 22.7 Bcf (19.4 Bcf is in the Caledonia Storage Field and 3.3 Bcf is in the County Line Field), including remaining native gas-in-place, at 14.73 psia and 60 degrees Fahrenheit and the maximum shut-in reservoir pressure shall not exceed 2,518 psia, without prior Commission authorization.

2. The Caledonia and County Line Fields shall be operated in such manner as to prevent/minimize gas loss or migration and Caledonia shall closely monitor both fields as the reservoir pressure approaches 2,518 psia to ensure the physical integrity of the fields.

3. Caledonia shall submit semi-annual reports (to coincide with the termination of the injection and withdrawal cycles), containing the following information (volumes shall be stated at 14.73 psia and 60 degrees Fahrenheit and pressures shall be stated in psia):

- a. The daily volumes of natural gas injected into and withdrawn from each storage reservoir.
- b. The volume of natural gas in the reservoirs at the end of the reporting period.
- c. The maximum daily injection and withdrawal rates experienced during the reporting period. Caledonia shall measure the average working pressure on such maximum days taken at a central measuring point where the total volume is injected or withdrawn.
- d. Results of any tracer program by which the leakage of injected gas may be determined. If leakage of gas exists, the report should show the estimated total volume of gas leakage, the volume of recycled gas, and the estimated remaining inventory of gas in the reservoir at the end of the reporting period.
- e. Any surveys of pressures in gas wells and the results of back-pressure tests conducted during the reporting period.

f. The latest revised structural and isopach maps showing the locations of the wells and the location of the gas-water contact. These maps need not be filed if there is no material change from the maps previously filed.

g. For the reporting period, a summary of wells drilled, worked over, or recompleted with subsea depth of formation and casing settings. Caledonia shall file copies of any new core analyses, back-pressure tests, or well log analyses.

h. Discussion of current operating problems and conclusions.

i. Such other data or reports which may aid the Commission in the evaluation of the storage project.

4. Caledonia shall continue to file reports semi-annually until the storage inventory volume and pressure have reached or closely approximate the maximum permitted in the order herein. Thereafter, the reports shall continue on a semi-annual basis for a period of one year.

Appendix B

Environmental Conditions for Caledonia's Proposals

1. Caledonia shall follow the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the order. Caledonia must:

- a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;
- b. justify each modification relative to site-specific conditions;
- c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
- d. receive approval in writing from the Director of the Office of Energy Projects (OEP) **before using that modification.**

2. The Director of OEP has delegation authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the project. This authority shall allow:

- a. the modification of conditions of the Commission order; and
- b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.

3. **Prior to any construction**, Caledonia shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, environmental inspectors, and contractor personnel will be informed of the environmental inspector's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.

4. The authorized facility locations shall be as shown in the EA. **As soon as they are available, and before the start of construction**, Caledonia shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the order. All requests for modifications of environmental conditions of the order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Caledonia's exercise of eminent domain authority granted under section 7(h) of the NGA in any condemnation proceedings related to the order must be consistent with these authorized facilities and locations. Caledonia's right of eminent domain granted under NGA section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. Caledonia shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, and documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area.**

This requirement does not apply to extra workspace allowed by Caledonia's Upland Erosion Control, Revegetation, and Maintenance Plan, minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
- b. implementation of endangered, threatened, or special concern species mitigation measures;
- c. recommendations by state regulatory authorities; and
- d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.

6. Caledonia shall employ at least one environmental inspector per construction spread. The environmental inspector shall be:

- a. responsible for monitoring and ensuring compliance with all mitigation measures required by the order and other grants, permits, certificates, or other authorizing documents;

- b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract and any other authorizing document;
- c. empowered to order correction of acts that violate the environmental conditions of the order, and any other authorizing document;
- d. responsible for documenting compliance with the environmental conditions of the order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
- e. responsible for maintaining status reports.

7. Caledonia shall file updated status reports prepared by the environmental inspector with the Secretary on a **biweekly** basis **until all construction and restoration activities are complete**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:

- a. the current construction status of the project, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
- b. a listing of all problems encountered and each instance of non-compliance observed by the environmental inspector during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
- c. corrective actions implemented in response to all instances of non-compliance, and their cost;
- d. the effectiveness of all corrective actions implemented;
- e. a description of any landowner/resident complaints which may relate to compliance with the requirements of the order, and the measures taken to satisfy their concerns; and
- f. copies of any correspondence received by Caledonia from other federal, state or local permitting agencies concerning instances of non-compliance and Caledonia's response.

8. Caledonia must receive written authorization from the Director of OEP **before commencing service** from the project. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas affected by the project are proceeding satisfactorily.

9. **Within 30 days of placing the certificated facilities in service**, Caledonia shall file an affirmative statement with the Secretary, certified by a senior company official:

- a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
- b. identifying which of the certificate conditions Caledonia has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for non-compliance.

10. **Prior to construction**, Caledonia shall file for review and written approval by the Director of OEP, detailed maps and aerial photographs identifying the temporary pipeline route, access road, well pad, and all workspaces that would be required to use Grant #22-14 for project purposes. Caledonia shall include a description of the existing land use/cover type and documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area.

11. Caledonia shall revise its Spill Prevention, Control, and Countermeasures (SPCC) Plan to identify refueling areas, availability of clean-up materials, spill mitigation measures and responses, training requirements, and storage and disposal procedures for hazardous materials during project construction. Caledonia shall file its revised SPCC Plan with the Secretary, for review and written approval by the Director of OEP, **prior to construction**.

12. Caledonia shall defer implementation of any treatment plans/measures (including archaeological data recovery), construction of facilities, and use of all staging, storage, or temporary work areas, and new or to-be-improved access roads **until**:

- a. Caledonia files with the Secretary cultural resources survey and evaluation reports, any necessary treatment plans, and the Mississippi State Historic Preservation Office's comments on the reports and plans; and
- b. the Director of OEP reviews and approves all cultural resources survey reports and plans and notifies Caledonia in writing that treatment

plans/mitigation measures may be implemented or that construction may proceed.

All material filed with the Commission containing **location, character, and ownership** information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: “**CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE.**”

13. **Prior to construction**, Caledonia shall file with the Secretary, for review and written approval by the Director of OEP, a Noise Mitigation Plan for the new well site and the entry and exit locations for the six horizontal directional drills where drilling would occur 24 hours per day. The plan shall include a description of any noise mitigation that would be implemented prior to the start of drilling activities to reduce noise impacts or alternate measures proposed by Caledonia, such as temporary relocation or compensation.

14. Caledonia shall make all reasonable efforts to assure its predicted noise levels from the Caledonia Compressor Station facilities are not exceeded at nearby NSAs and file noise surveys demonstrating this with the Secretary **no later than 60 days after placing the new compression facilities in service**. However, if the noise attributable to the modified Caledonia Compressor Station at full load exceeds a day-night sound level of 55 decibels on the A-weighted scale at any nearby NSAs, Caledonia shall file a report on what changes are needed and shall install additional noise controls to meet the level **within one year of the in-service date**. Caledonia shall confirm compliance with this requirement by filing a second noise survey with the Secretary **no later than 60 days after it installs the additional noise controls**.